

REMARKS

The Office Action mailed August 18, 2003 has been reviewed and the Examiner's comments carefully considered. Claims 1, 5, 6 and 11 are amended to correct various informalities. Claims 1 and 3-12 remain pending and are submitted for reconsideration.

Allowable Subject Matter

The indication that claims 5, 8 and 9 contain allowable subject matter is noted with appreciation.

Claim Objections

The grounds for the objections to claims 1, 6 and 11 have been obviated by the claim amendments set forth above. Withdrawal of the objections to the claims is respectfully requested.

Claim Rejections

Claims 1, 3, 4, 6, 7 and 10-12 are rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,371,845 (Pitzalis). The rejection should be withdrawn because Pitzalis does not disclose, teach or suggest the invention of claims 1, 11 and 12.

For example, Pitzalis does not disclose "a pair of inputs" as called for in claims 1, 11 and 12. Although Pitzalis illustrates a power divider/combiner which has some visual similarity to that of the present invention, the details of Pitzalis are quite different and do not disclose or suggest the invention as defined in claims 1, 11 and 12.

Pitzalis does not disclose the use of pairs of inputs. It only teaches the use of individual inputs. Although Figures 4 and 5 of Pitzalis show inputs which are positioned opposite one another, there is no disclosure of these inputs being "pairs" and it is only with hindsight that such an interpretation is possible.

Even if one considers two opposing inputs of Pitzalis as a pair, there is still no disclosure in Pitzalis that these inputs are intended for or are suitable for setting up a standing wave therebetween. Pitzalis is particularly concerned with providing a stepped air/dielectric

space along the length of the inputs so as to provide impedance matching. This arrangement is far from ideal for setting up standing waves.

Further by way of example, Pitzalis fails to disclose a standing wave positioned such “that the signal output from each of the first and second pairs of outputs is unaffected by the state or impedance of the other of the first and second pairs of outputs” as called for in claims 1, 11 and 12.

The present invention as recited in claims 1, 11 and 12 requires the first and second pairs of inputs to be positioned not only to setup first and second standing waves, but also such that the input signal of each of the first and second pairs of inputs is unaffected by the state or impedance of the other of the first and second pairs of inputs. Since Pitzalis makes no suggestion of using pairs of inputs to set up standing waves, there can then be no suggestion of positioning those pairs of inputs such that they do not affect one another.

In summary, Pitzalis describes a power divider/combiner which splits the coaxial input into a plurality of individual radial transmission lines, each transmission line including discrete steps to provide impedance conversion/matching. In contrast to the present invention, if one of the transmission lines is broken or disconnected, then the overall device becomes unbalanced and the other transmission lines are affected.


Claims 3, 4, 6, 7 and 10 depend from claim 1 and are allowable therewith, for at least the reasons set forth above, without regard to the further patentable limitations contained therein.

Conclusion

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would expedite allowance of the application.

Respectfully submitted,

Date: 1/20/04

By: 

FOLEY & LARDNER
Customer Number: 22428
Telephone: (202) 672-5582
Facsimile: (202) 672-5399

Howard N. Shipley
Attorney for Applicant
Registration No. 39,370

SHOULD ADDITIONAL FEES BE NECESSARY IN CONNECTION WITH THE FILING OF THIS PAPER, OF IF A PETITION FOR EXTENSION OF TIME IS REQUIRED FOR TIMELY ACCEPTANCE OF SAME, THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE DEPOSIT ACCOUNT NO. 19-0741 FOR ANY SUCH FEES; AND APPLICANT(S) HEREBY PETITION FOR ANY NEEDED EXTENSION OF TIME.